

TESTIMONY

of

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in

the Matter of

California's Emergency Preparedness

with Emphasis on the State's Capacity to Respond

to Major Catastrophes when Local Governments are Overwhelmed

Presented

to

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## CONCLUSIONS

**1. Match Efforts and Funds to Risks.** Ours is one of the most, if not the most, hazardous state. How we organize for and fund preparedness and mitigation must be appropriately innovative and sized to match our risks.

**2. All Hazards Insurance (with teeth).** We can not adequately fund mega-disaster losses without an appropriately sized cash reserve; and sufficient incentives are not in place to facilitate citizen loss reduction commensurate with the risks faced. All hazards insurance can assist with both needs. But to work toward both goals, the program should require participation, have premiums that are risk based, and premiums should be adjusted downward contingent on the adoption of mitigation actions. The entity that offers the program should be required to do more including partner with others to “effectively” educate citizens, and participate in the model building code process

**3. Sufficient and Stable Funding.** Funding for preparedness is needed for both oversight and preparedness activities, should come from the General Fund, and should be sufficient and stable over the long-haul. Funding for mitigation is needed for oversight and projects. Oversight funding should be sufficient and stable over the long- haul and come from the General Fund. Mitigation projects funding should be from the General Fund and use other diverse funding mechanisms.

**4. Comprehensive and Innovative Preparedness.** Require local governments to have “comprehensive” planning, but support them with technical assistance and funds to develop, update, and exercise those plans. Increase professionalism through plan certification, and gradually faze-in education requirements for emergency management professionals. Adopt plans and take steps to develop and use citizen victims as first responders and as self-responders. Recognize the gaps that come from top-down/command and control approaches, and fill the gaps that such approaches produce.

**5. Expert Oversight.** Carefully select and permanently fund expert oversight to match mitigation and preparedness activities and policies to changing risks through an appropriate mix of topic-specific expert commissions. Provide for inter-commission oversight through an inter-commission board made up of representatives from each commission.

**6. Leverage Resources in a Ways that Work.** The state should organize and fund a program somewhat like Project Impact that was once operated by the Federal Emergency Management Agency to leverage private sector funds and increase local community preparedness and mitigation.

**7. Public Education that Yields Public Actions.** Fund and conduct an informed, multi-pronged, and ongoing public education and information campaign that fosters citizen “actions” to prepare and mitigate their losses. This program should involve partners, be routinely evaluated and adjusted to take its results and lack of results into account, and be based on state-of-the-art knowledge about what makes such a program effective.

## QUESTIONS AND ANSWERS

**ISSUE 1. Ensuring sufficient resources.** Funding for emergency preparedness must address annual needs for preparations and prevention as well as episodic needs for response and recovery.

**QUESTION 1A.** What financial strategies might the State consider to meet ongoing as well as episodic funding needs?

**ANSWER 1A.** Contextual factors influence funding option acceptability. Example factors include (1) competing financial demands for routinely needed services; (2) the perception that disasters occur at the local versus the state level, and that the federal government often funds post-disaster needs; (3) largely absent public acceptance--except in a disaster's aftermath--of being at risk to disaster; and (4) variation in the orientation of political parties to raise taxes. Factors like these can be as important for funding options selections as logical alternatives comparisons.

Moreover, some states have more to fund than others because they are more hazardous, have higher future losses, and more activities to perform to get ready than others. This variation could impact funding strategies adopted. The State of California is one of the most, if not the most, hazardous states in our nation based on estimates of past losses (see APPENDIX 1), future losses, and the potential for future mega-disasters. I recommend that our state fund annual and episodic activities for mitigation and preparedness at appropriate levels that are commensurate with the great risks/losses that we face; and that we also organize and adopt policies and programs commensurate with that risk.

**Funding Strategies for Annual Activities.** Annual prevention (mitigation to enhance public safety) and preparedness (for emergency response, recovery, and reconstruction) activities are a prime responsibility of government. It would be wise to fund these activities at levels appropriate for the hazards and levels of associated risks in our state, but also leverage those funds by providing leadership and good examples for local government, the private sector, and citizens. Somewhat different funding strategies are warranted for preparedness versus mitigation activities.

**Funding annual preparedness activities.** Disaster preparedness planning--and the training and exercising needed to support it--does upgrade response, saves lives, and reduces injuries, human suffering, and impacts such as economic ones. Inadequate preparedness yields flaws (witness response to Hurricane Katrina) in response, recovery, and reconstruction when disasters occur that are rarely acceptable with the public. There are two preparedness funding strategies--beyond adequate funding--that I recommend.

First, take advantage of the preparedness funding opportunities provided by the federal government through the Federal Emergency Management Agency (FEMA) to support state preparedness. But this strategy is insufficient for a variety of reasons. For example, federal programs come and go too quickly to provide us with the stable emergency preparedness program that the people of

the State of California deserve; emphases in federal funding programs may be inconsistent with the hazards and risks that we face in our state; and the quality of federal leadership on this issue changes over time.

Second, preparedness (for response, recovery, and reconstruction planning) should be funded from the general fund; and funding should be sufficient and stable over the long haul. Some reasons why include the following. Large urban centers typically fund and have relatively adequate emergency planning activities, but smaller communities typically lack the resources, staff, and expertise to adequately address preparedness. We can not rely on the federal government—even though they may be willing to fund it—to do the actual work of responding to disaster; we must be able to rely on state response based on adequate state preparedness. Finally, if we can not expect most local communities (particularly the smaller ones) to be adequately prepared, and if we can not expect the federal government to provide immediate and adequate response, that only leaves the state level to fill the gaps. I can not illustrate this point more clearly than was done by one Hurricane Katrina victim in the first days after impact as she pondered her neighbors in attacks and on top of roofs waiting for rescue in New Orleans: “Where is everyone who’s supposed to be helping? What were these people (meaning government leaders) not doing when they went to work in their offices that they were supposed to be doing?”

Funding annual mitigation activities. Natural hazards mitigation works to reduce losses in future disasters, and it is cost/benefit effective. Case studies and a recent capstone evaluation project based on a statistically representative sample of mitigation projects funded by FEMA provide the evidence. I recommend three funding strategies to actively fund mitigation in the State of California.

First, and as was the case for preparedness, take advantage of all the funding opportunities and programs for mitigation activities and projects that are made available by FEMA for pre- and post-disaster mitigation as well as from other external sources and the private sector.

Second, in addition to funding mitigation projects, also fund ongoing mitigation oversight. This is needed for a variety of reasons, and some example reasons follow. Individual state agencies may consider mitigation—with variation in emphasis over time—as part of their routine activities. For example, a department of transportation might consider the seismic resistance of bridges and highways; a levee board might consider maintenance activities to keep levees sound; and coastal management organizations should consider the tsunami hazard and what to do about associated risks. Despite expectations like these, real world experience tells us that many such expectations go unfulfilled. Moreover, mission-focused approaches in specific agencies miss the larger and even more important picture, and rarely do they have an interdisciplinary perspective. A stable, keen, interdisciplinary, and long-term eye on the big picture is needed, for example, to reasonably view broad changes in risks and what to do about them. Consequently, mitigation oversight is as important to fund as are individual mitigation projects; in fact, it might be more important.

Third, the funding approach for mitigation that I recommend is to fund mitigation, particularly for mitigation oversight, from general fund; and funding should be sufficient and stable over the long haul. However, because mitigation activities are diverse and often project focused, other multi-tract funding options should be aggressively exercised. These include: (1) the General Fund since everyone benefits; (2) the Insurance Fund since mitigation reduces insured losses; (3) State Bond Funds—in much the same way that the Governor has proposed funding hardening the levees in Sacramento—that involve construction since mitigation has a direct loss saving through hardening the constructed environment; (4) Building Permit Fees, again since mitigation has a direct loss saving through hardening the constructed environment; (5) Utilities Surcharges since this vehicle links mitigation sponsorship to many of the consumers who benefit; (6) Surcharges on parcel/subdivision maps developed by local governments since it links mitigation to development; and (7) a combination of any of these financial strategies. A broad approach to funding mitigation is important since mitigation activities are diverse, for example, (a) funding mitigation oversight; (b) funding diverse specific projects that cut across a variety of societal functions, e.g., flood protection, utility life lines, retrofitting historical buildings for seismic resistance, and so on; and (c) funding activities that foster mitigation actions by others which is typically called “process mitigation.”

Funding Strategies for Episodic Needs. Someone pays for all the dollar losses associated with disasters (natural or otherwise). All too often many of the costs are passed on to future generations by increasing government’s debt. Examining funding alternatives for the costs of disaster is an exploration into how to distribute the costs across different segments of society and time.

FEMA Funding. California, like other states, has often sought Presidential Disaster Declarations through FEMA to access federal funds to cover post-impact costs. We should continue to avail ourselves of as many of these dollars as is possible. Preparedness to access these funds should include keeping trained staff familiar with the application process and access to state-of-the-art consequence/loss estimation models that can quickly estimate losses to support a rapid Governor’s request for a Presidential Disaster Declaration.

Insurance. Insurance might seem like an appropriate vehicle to redistribute the costs of disasters. But most residents of earthquake prone areas, for example, choose not to insure against earthquake damage. (It is admirable that the California Earthquake Authority offers insurance to citizens and this program is important to keep and even expand.) Over the years, there have been attempts at the national level to have Congress pass an all-hazards (or some version of it) insurance program. I am not optimistic that such a national program would ever be adopted. And there is great reluctance among insurance companies to insure against losses for some natural hazards, for example, floods. This reluctance is based on the belief that they could not break even financially with such insurance. Moreover, insurance is not a loss mitigation measure; it redistributes rather than reduces losses.

I recommend that the State of California develop and offer all hazards insurance—just as it now offers earthquake insurance—to homeowners. This

insurance should be required of homeowners and should contain incentives for loss reduction mitigation. For example, premiums should be risk based, and adjusted downward contingent on homeowner adoption of mitigation actions for the property being insured. Moreover, the insuring entity should be charged with effectively educating the public about risks, preparedness, and mitigations; and with actively participating in the model building code process.

Mega-disaster Funding Needs. Without an appropriate state-based insurance fund to accumulate reserves, I can not envision a strategy that would result in sufficient resources to cover all the costs associated with a mega-disaster in our state. The largest event we are likely to face is a great earthquake. The financial impact of such an event would be very large (FEMA and the Department of Defense estimated the dollar impact of a great southern California earthquake to be \$250 Billion, but that estimate is 25 years old). Dollar losses from such an event, if it were to occur now, would be distributed as follows: some losses would be covered by FEMA, some other losses (perhaps in the teens of percentages) will be covered by insurance, and the majority of losses will likely be borne by the victims themselves. Moreover, different segments of the affected victim population will bear different proportional impact costs based on factors such as their race, ethnicity, gender, and socio-economic level.

**QUESTION 1B.** How have other states or countries addressed their funding needs for emergency preparedness?

**ANSWER 1B.** I do not know the answer to this question. I do not know the funding mechanisms used by other states. I do, however, have some comments that might assist you in framing an examination of what other states and nations have done.

First, we should keep in mind that the State of California is a national and even world leader in the matter of disaster preparedness and mitigation. Others look to us to provide leadership and for initiating the spread of innovations rather than the other way around.

Second, the funding strategies selected for use in other states and nations have likely been influenced by their own unique hazards and risk mixes that are likely different than our own, their customized disaster histories, and different political considerations.

Last, recent failures in response to Hurricane Katrina only now make it rigorously obvious that more imaginative state strategies for funding and performing the activities needed to get ready for mega-disasters are needed. Existing strategies in other states and nations may not be realistic today, nor would we want to necessarily transfer them to our state. Additionally, because our state is one of the most populous, hazardous, and high risk states in the nation; we simply stand to loose more from disasters and mega-disasters than most other states which demands innovative funding approaches.

**QUESTION 1C.** What incentives should the State build into its funding to encourage excellence?

**ANSWER 1C.** Achieving excellence in disaster preparedness requires strong leadership. Providing incentives is only one way to express that leadership. I will answer this question from the point of view of how to foster emergency preparedness excellence in local governments. Please keep in mind that my answer would be different were I to address different entities, for example, households, small businesses, large corporations, or state agencies. Additionally, the Seismic Safety Commission has already supplied the Little Hoover Commission with a report on good incentives that would encourage excellence. I do, however, have some suggestions.

Require “Comprehensive” Emergency Planning. No state in the union requires “comprehensive” emergency preparedness of local governments or of itself. A pre-incentives step to encourage excellence in emergency preparedness would be to require that all levels of government have “comprehensive” plans; for example, plans that cover the full range of planning topics, for example, local risk assessments to identify the problems that local emergency plans should address, plans for “effective” pre-impact public warning systems (detection, inter-organizational communication, and public response elements), emergency post-impact response, recovery, and, last, reconstruction planning for the full range of hazards and risk faced.

Funding Incentives. Next, a funding incentive (perhaps based on a cost-sharing formula that pays close attention to the size of local governments) should be provided to foster plan development where plans are currently lacking. Small communities likely need more assistance than larger ones; some communities likely have adequate plans in place on some topics while other communities do not; some hazards and plan elements may already be planned for while others may be largely ignored, e.g., tsunami evacuation.

Provide Technical Assistance. The state might do well to provide the incentive of making applicable existing information that is currently available inside our state’s agencies (and other needed information) readily available to locals in understandable language. Additionally, the incentive of providing technical assistance (both written and in the form of staff assistance) as needed by local planning entities to support their efforts could be offered...

Plan and Practitioner Certification. Emergency planning professional organizations and other organizations such as the Federal Emergency Management Agency have information that could be used by the state to certify emergency management plans and even to certify or license emergency managers. It may well be time to require state certification of plans and planners as is done with other professions that have a much less direct impact on life safety.

Incentives for Intergovernmental Relations. Funding might also be linked to preparing (exercising and training for) for interacting with other governmental levels (the state and the federal government). Our national and state systems of disaster response require sound inter-governmental relations. But as inter-system failures in Hurricane Katrina illustrated, it is important that these linkages be appropriately addressed beforehand.

Facilitate Increased Professionalism. The state could adopt the incentive of requiring an increased level of professionalism in its future emergency managers. For example, set requirements for persons to hold an emergency management degree (the full range of degrees are now available, e.g., A.A., B.A., M.A., and Ph.D.) in order to be considered for specified future emergency management jobs.

Practice Makes Perfect. The state could link funding to local jurisdictions' exercising their plans and training personnel according to some appropriate regime.

Meg-disaster Preparedness. Initial emergency response by organizations will be overwhelmed and rendered immobile in a mega-disaster. Initial emergency response will be performed by the victims themselves. Fortunately, we know that victims have always responded in helping ways, for example, empirical observations from around the world conclude that 95 percent of the victims rescued in great urban earthquakes are rescued by other victims. Traditional disaster response organizations and government will not be able to respond during most of the emergency period--at least not for days past the popular notion of 72 hours and, even then, response will not be available in all areas, nor will it be offered to all affected population segments. California should supplement traditional organization-based emergency preparedness by empowering and reading the victim public to be the first responders and self-responders in a mega-disaster. Preparedness excellence would seek to empower citizen victims now thorough education and training, and during the event over as many media as might be available) with clear and simple information about what to do and how to do it. Moreover, we have known since research on the topic was first conducted in the 1950s--and we, unfortunately, continue to relearn this important lesson--that top-down command and control approaches to civilian community disasters does not work effectively in our nation. This approach will be as doomed to failure in a mega-disaster in California as it was in New Orleans during Hurricane Katrina, albeit perhaps for different reasons.

Provide Oversight for Mitigation and Preparedness. I have already pointed to the need for our state to organize and fund oversight for both mitigation and preparedness, and I recommended that oversight be funded by the General Fund. This oversight would be best provided by a group of independent experts that report to the legislature and Governor in matters of preparedness and mitigation for the variety of hazards that face our state. This group would consider changing risks and recommend state-level preparedness and mitigation next steps needed to address it. (This is not unlike what the California Seismic Safety Commission does for the earthquake hazard.) However, great care needs to be given to how this oversight function for "all hazards" is organized. For example, one all-hazards commission would require too many experts to function well or be effective. I recommend that a set of appropriate independent commissions be established that have hazard specific (or sub-groups of hazards) missions, for example, the Seismic Safety Commission for earthquakes, another commission for terrorism, and so on; and that delegates



from the different commissions be organized as an independent oversight board to coordinate activities. Membership on a commission should be based on both disciplinary expertise and experience. Term limits should be imposed, but provisions for multiple terms should be in place to enable individuals with valuable unique contributions to serve multiple terms.

**ISSUE 2. Leveraging private sector resources.** California's residents and businesses cannot rely on the public sector alone to respond to hazards. And the costs of catastrophes are borne by the private sector and households as well as government.

**QUESTION 2 A.** How can the State best leverage private sector resources to improve emergency preparedness, including prevention, preparation, response and recovery?

**ANSWER 2A.** Private sector involvement in prevention (mitigation) and preparedness for emergency response and recovery does happen on its own; however, its frequency, intensity, and the diversity of business involvement increases when it is fostered by a government program. Past government programs have tried to increase private sector involvement and funds. The programs of which I am aware that have produced the greatest results shared several common characteristics that contributed to their success. These characteristics included: (1) leadership is provided by state and/or federal government, (2) public and private sector organizations in local communities are the targets for action, and (3) programmed actions are taken to directly increase the number of private and public sector local actors (partners) involved in addressing quake hazard reduction (mitigation and preparedness) and the level of intensity and commitment that they bring to this work. This approach invests time, effort, and money in conducting a social process that "grows" the involvement of others. Despite the success of such programs, they tend to be short lived since they contradict some political philosophies. I recommend that the State of California create and implement such a program.

**QUESTION 2.B.** What models might California look toward to expand the public and private sector resources available for emergency preparedness?

**ANSWER 2B.** The most successful past program that I am familiar with is briefly described below.

**Project Impact.** This program was begun by the Federal Emergency Management Agency (FEMA) during the Clinton administration, but it was eliminated under the Bush administration. The program brought together a wide range of public and private stakeholders in local communities to discuss, select, design, and implement local approaches for hazard readiness (mitigation, preparedness, response and recovery). It increased the salience of mitigation and preparedness in local communities, and it increased the types and numbers of local actors—including private sector organizations--working on the topic. Aspects of Project Impact were, in fact, informed by an earlier successful program that was conducted right here in the State of California.

Southern California Earthquake Preparedness Project. This project (SCEPP) began as a joint venture between the California Seismic Safety Commission and FEMA in the early 1980s. This project was later duplicated in other areas of the state. It was eventually moved to the California Office of Emergency Services (OES). The project initially hired separate staff, had a Board of Directors made up of public and private sector representatives (involving private sector members on advisory boards is itself an excellent strategy to increase private sector involvement), and staff worked with locals to develop local preparedness plans for government and private sector organizations.

**ISSUE 3. Building public commitment for public challenges.** The lessons of Katrina demonstrate that individuals and families cannot rely on government for their safety and recovery. But the public is not a consistent partner in emergency preparedness.

**QUESTION 3 A.** How can the State best engage the public to support public investments in emergency preparedness as well as ensure adequate household preparations?

**ANSWER 3A.** There are different pathways to increase public salience for emergency preparedness. Short of experiencing a disaster, the most successful pathway of which I am aware is a well designed and ongoing public information and education campaign. What an effective program might look like has been researched, tested, and validated. Moreover, this research, testing, and validation were each done with citizens in small and large communities in our state, for example, in Coalinga, Paso Robles, Taft, and in the Bay Area. Although several capstone publications summarize this record, I have appended a white paper (see APPENDIX 2) that provides more details than I provide in this testimony regarding what effective public hazard education/communication would look like. I recommend that our state design and implement a permanent effective public education campaign (one that results in increased awareness, but even more importantly, increased public preparedness and mitigation actions), and that this effort be routinely evaluated for effectiveness, and then appropriately adjusted to achieve higher levels of success.

In short, this pathway can be summarized as follows: (1) provide the public with appropriate topical information; (2) deliver and make that information available to them in appropriate ways; (3) use multiple partners to disseminate the information through multiple channels; and (4) deliver the information as part of a lengthy and preferably ongoing public education process.

Programs like these have existed and they were effective. Although a program with these characteristics could be effectively maintained over time, actual past programs have not survived over the long haul since they require continuous funding, commitment from multiple agencies and organizations, ongoing work to develop and maintain inter-organizational partnerships, and the political will needed to keep them in place across changes in administrations and in the composition of legislative bodies.

## APPENDIX 1

State Comparisons of Presidential Disaster Declarations and Disaster Incidence  
(from Dennis S, Mileti. 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Washington, D.C.: Joseph Henry Press).

## APPENDIX 2